REMARKS

The specification has been amended to remove the embedded hyperlinks as required by the examiner.

Claims 16-18 have been amended to remove the claim objection arising from the use of "The method".

Claims 1-26 were rejected under 35 U.S.C. § 102(e) as being anticipated by Oku et al. 6,710,817. The examiner states "Regarding claims 1, 16-18, Oku discloses a method of creating a compatible analog signal which carries a digital video signal on an existing analog video system ... carrying the compressed video signal as a quasidigital signal ... ." Applicant disagrees.

Oku does not carry a digital video signal on an analog signal, rather Oku carries the video content (i.e. the video images) that were previously carried on the digital video signal on the analog signal. This is a much different process than carrying the digital video signal (i.e. the bits making up the signal) on the analog signal.

Oku shows an analog signal which carries an analog video signal for which the images which are carried originally are carried on a digital video signal but which images have been converted back to analog. This is different than applicant's invention which carries digital video by converting the bits of that signal to a multilevel analog signal, but not by converting the digital video images back to analog video images. For example at page 6, lines 4-8 it is taught "[a]nother aspect of the present invention is to provide a means of compression of digital video and audio signals and formatting said signals into a form which appears to standard analog equipment to be an existing video and audio analog standard format such as NTSC, PAL, SECAM, etc." At page 7, line 23 – page 8, line 2, it is taught "The inventor herein defines the term quasidigital to mean an analog signal which carries digital information in a fashion such that the signal amplitude is restricted to discrete values at specific times" (emphasis added). Note the binary data codes 601 corresponding to the amplitude levels of the quasidigital signal 600 of Figure 6. In other words, the person of ordinary skill would know from the teachings taken as a whole that it is the digital bits themselves (said digital signals) which are formatted into a form which appears to be the analog standard format.

There is a dramatic difference between applicant's invention and Oku. In Oku the analog video image suffers all of the typical degradations of a normal analog video image signal because the image is carried as an analog video signal. In applicant's invention, the digital video does not suffer these degradations even though the signal carrying it is converted to a different form of digital video which applicant terms quasidigital. Oku does not disclose this.

Independent Claims 1-4 recite a quasidigital signal. Applicant, as his own lexicographer, has defined a quasidigital signal, for example at line 23 of page 7 of the specification as "an analog signal which carries digital information in a fashion such that the signal amplitude is restricted to discrete values at specific times" (emphasis added). Oku carries analog information. The examiner states that the quasidigital signal of the claims "is a digital signal converted to analog signal as seen in the applicant's own specification page 12, lines 1-12. In other words, while the applicant is his/her own lexicographer the "quasidigital" is a digital signal converted into a compatible analog video signal." Applicant disagrees. The section the examiner refers to recites:

> The compatible analog signal 8a is preferred to appear as a standard analog video signal, in as much as the makeup of the compatible analog signal 8a is desired to utilize standard analog sync and burst while it is also preferred to convert the digital signals 5a, 6a into a multilevel analog waveform and placed into the active video portion of a standard analog signal format in a fashion such that the digital signals 5a, 6a are passed and operated on by standard analog signal equipment without imparting adverse distortion, artifacts and the like to the waveform, thus allowing subsequent recovery of digital signals 5a, 6a as will be described further below.

It is seen that this section the examiner is referring to is describing the compatible analog signal 8a which carries the quasidigital signal. It does not describe the quasidigital signal as the compatible analog video signal as the examine states. The quasidigital signal is the digital signal (i.e. the bits) carried by the compatible analog signal, but is not by itself a compatible analog video signal.

A characteristic of the quasidigital signal is that "the signal amplitude is restricted to discrete values at specific times" as defined at page 7. The digital signals (the bits) which are so carried (as a multilevel analog waveform) "are passed and operated on by standard analog signal equipment without imparting adverse distortion, artifacts and the like to the waveform, thus allowing subsequent recovery of digital signals 5a, 6a as will be described further below" (emphasis added).

And further below at page 18, line 18 – page 19, line 4, with respect to the Figure 5 preferred embodiment applicant teaches "The pulse amplitude waveform 16 has eight discrete amplitudes of voltage levels 30 having a uniform amplitude separation 18. The pulse amplitude waveform 16 also has multiple discrete durations in time, having uniform separation of cell time durations 17."

The examiner's argument fails for several reasons, first the page 12 section pointed to teaches the compatible analog signal is preferred to appear as a standard analog video signal. It doesn't say it is a standard analog video signal or that it is preferred to be a standard analog video signal. This distinction is important because the quasidigital signal which is part of the compatible analog signal carries the bits of the digital signal and it is the bits that carry the image (or audio). A standard analog video signal does not have the active video portion constrained to discrete signal amplitude values at specific times. A standard analog video signal carries an image directly, rather than the bits that carry the image (or audio) as claimed.

This section on page 12 goes on to state "it is also preferred to convert the digital signals 5a, 6a into a multilevel analog waveform." It is this multilevel analog waveform which is the quasidigital signal. Stated another way, at page 12 the quasidigital signal is specified as a "multilevel analog waveform" not an "analog signal" as the examiner implies in the rejections. The compatible analog signal appears as a standard video signal but is not a standard video signal. Again, the multilevel analog waveform is bits carrying an image (or audio), not the image (or audio) itself.

The multilevel analog waveform (the quasidigital signal) has sync and blanking waveforms added to create the compatible analog signal (page 11, lines 15 & 16) which appears as a standard analog video signal such that the digital signals "are passed and

operated on by standard analog signal equipment without imparting adverse distortion, artifacts and the like to the waveform" (page 12, lines 1-10). In addition, the page 12 section the examiner points to clearly states that the process "will be described further below." Consequently the examiner takes the language out of context by not recognizing and considering the full specification and the invention as a whole. It is believed this is not a proper consideration of the teachings of the specification.

There is a distinct difference between applicant's defined quasidigital video signal and an analog video signal. Whereas the quasidigital signal has "the signal amplitude is restricted to discrete values at specific times" so as to provide a "multilevel analog waveform" as pointed out at page 12, a true analog signal has no such restriction. It is also noted that the quasidigital signal may include bits carrying either or both digital video and digital audio. An analog video signal carries the image directly (and does not carry audio).

More importantly however, Oku's teachings do not provide such signals wherein "the signal amplitude is restricted to discrete values at specific times." Oku is clearly missing such a signal in that the Oku output signal does not carry digital information as a multilevel analog waveform wherein the signal amplitude is restricted to discrete values at specific times, rather it carries only analog information. Although applicant has previously pointed out this missing element of Oku, the examiner has not provided any evidence that Oku has a signal whose amplitude is restricted to discrete values at specific times and which carries the claimed digital information. Rather the examiner misinterprets the definition of quasidigital to fit the analog signal of Oku. This amounts to impermissible hindsight reconstruction.

The examiner has recited "Oku does provide DAC 16 while providing a first reformatter 14 converting the pictorial data into an arbitrary picture format ... further, the third reformatter has the frame synchronize function of converting the pictorial data used in the analog broadcast ... (See col. 12, lines 10-32)." Even so, these elements of Oku do not teach converting the digital bits to a signal whose amplitude is restricted to discrete values at specific times and which carries the digital information as called for in the claims. The output of DAC 16 is an analog signal (column 7, line 42), the

outputs of the reformatter 14 is a digital signal, which after addition of the on screen display information by 15 is converted by 16. The third reformatter similarly has a digital output. There is no teaching in Oku that the output of any of the DACs is a signal whose amplitude is restricted to discrete values at specific times.

It might be mentioned that the person of ordinary skill in the art would know that DACs receive a fixed number of bits of digital data, for example 8 bits is commonly used for video signals. It is known that a switched resistor network or current source is commonly used to provide an analog voltage or current which is updated at clock intervals such that the analog value from the switched resistor network or current source corresponds to the input digital value. The output of the resistor network or current source is known to be filtered in a reconstruction filter to create a smoothed analog voltage or current. There is no suggestion in Oku to provide anything other than the smooth analog voltage or current output from the DAC as would be known to the person of ordinary skill in the art. Oku's DACs convert the image carried by the digital signal to the same image in analog form. By comparison, applicant's quasidigital signal (even it it is created with a DAC) carries the digital bits which in turn carry the digital image.

Independent claims 16-18 contain similar limitations to those in 1-4. Claim 16 calls for "a digital signal carried in analog form wherein the analog form is restricted to discrete values at specific times" and claim 17 calls for "a digital signal which is compressed and carried in analog form wherein the analog form is restricted to discrete values at specific times" and claim 18 calls for "a digital signal carried in analog form wherein the analog form is restricted to discrete values at specific times." By comparison Oku converts the image carried by the digital signal to an analog image.

Regarding the rejection of claims 13-15 the examiner has not provided any evidence that one of ordinary skill in the art would consider restricting the compatible digital signal at specific time would be considered analogous to the reformatting the digital signal (i.e. the bits) into analog based on the synchronizing signal. Further, the col. 12, lines 23-36 excerpt says nothing about restricting the amplitude of the signals.

In respect to the rejection of claims 2-3 it is agreed that Oku shows creating an NTSC compatible analog signal, however it is missing the quasidigital feature of these claims.

In the claim 4 rejection applicant points out that Oku is missing the quasidigital feature of these claims. In addition Oku does not carry digital information as an analog signal, but rather carries the image information which was carried as a digital signal as an analog signal. In other words the analog signal carries the image, not the bits which themselves carry the image. Accordingly the digital nature of the signal is lost.

In regard to the claim 7-12 rejection, it is pointed out that MPEG is a digital signal and thus Oku's MPEG signal does not fit the claimed quasidigital signal which carries the digital signal bits as a multilevel analog signal.

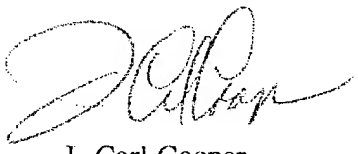
In the rejection of claims 19-22 it is pointed out that the digital signal of the claims is that which is carried in analog form wherein the analog form is restricted to discrete values at specific times. The digital signal of Oku which the examiner points to is simply a digital signal. It is not carried in analog form.

Regarding the claim 23-26 rejection, the claims specify the characteristics of the analog signal carrying the digital signals whereas Oku's receiver of figure 8 receives a standard analog video signal from an analog tuner. The standard analog video signal does not carry digital signal bits nor is its amplitude restricted to multilevel values, rather the amplitude is allowed to take on any value (within limits of the standard).

In that Oku is missing any teaching of key elements of the claimed invention it is requested that the present claims be allowed and the application passed to issue.

The claims clearly specify and point out novel features of the invention which are believed not fairly taught or suggested by the cited art. Accordingly it is respectfully requested that the claims be allowed and this application pass to issue.

Respectfully Submitted,



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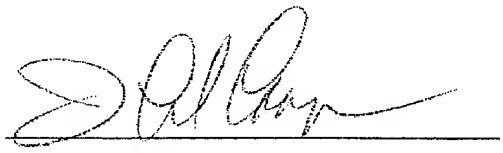

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